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ABSTRACT

A study was conducted in the Champaign-Urbana area to evaluate the relationship of the educational preparation of medical transcriptionists to their on-the-job requirements. Personal interviews were conducted with three hospital medical records administrators and with the appropriate department head of an area community college that offered a medical transcription program. During the interviews, administrators identified the tasks performed by transcriptionists and non-transcriptionists and ranked these tasks in order of importance. Likewise, the department head identified those tasks meeting the instructional objectives of the curriculum and rated the emphasis given to each one. The following tasks were rated as very important by both groups: (1) transcription from recordings, (2) use of electric typewriter, (3) use of magnetic tape selector typewriter, (4) transcription of histories and physicals, (5) transcription of consultation and discharge summaries, and (6) transcription of operative reports. Administrators indicated that graduates were often deficient in the last three skills, suggesting that more training should be provided in grammar, medical technology, use of reference materials, and the ability to interpret foreign or poor diction. The investigators recommended that internship programs be established and medical terminology self-instruction programs be implemented in the employment setting. (JP)

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A TASK ANALYSIS ON

THE EDUCATION AND UTILIZATION OF MEDICAL TRANSCRIPTIONISTS

IN ILLINOIS COMMUNITY COLLEGE DISTRICT #505

by

Richard K. Tworek
and
Edward L. Campbell

JC 800 047

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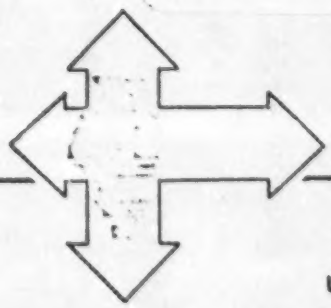

AREA HEALTH EDUCATION SYSTEM

REGION 3-B Champaign, Illinois

University of Illinois College of Medicine

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INTRODUCTION

In May, 1976, the Area Health Education System Region 3-B Coordinator was approached by a local hospital administrator having concern for an apparent deficiency in medical terminology skills of medical transcriptionists seeking employment in the hospital's medical records department. This concern prompted AHES to initiate a study to evaluate the relationship of educational preparation of medical transcriptionists to their on-the-job requirements.

The study was initiated by conducting personal interviews with the hospital's medical records administrator and local community college staff. The interviews resulted in a decision to develop a task inventory analysis of competencies derived from the educational program as related to competencies required by local employers.

The medical transcriptionist is defined by Health Careers Planning Guide-Illinois (1974) as follows:

> The medical transcriptionist types written and recorded medical records.... The records they transcribe are used for emergency and follow-up treatment by physicians and other health care personnel, by insurance companies, and by other agencies. The transcriptionist must type medical diction, and know how to interpret medical reports (p. 10-D-1).

The transcriptionist's primary responsibility is tranforming the written or dictated medical record into permanent document containing the complete report of the patient's illness or injury. This responsibility identifies the transcriptionist as an important component in the operation of the medical records department.

A study by Appel, et al. (1976) evaluated job-related tasks performed by recent medical records technician graduates in relation to task preparedness

in their training programs. The investigators used a conceptual approach to curriculum relevance by designing a model of a graduate feedback process (FIGURE 1) that illustrated the relationship of the technician's competencies derived from the educational program to competencies required by an employer. An overlapping of a portion of technician competencies met by employer requirements is illustrated by Area B in the Feedback Process, whereas the unrelated Areas A and C identify the additional competencies derived from the educational program not required for employment (Area A), as well as the additional competencies required by the employer that are not covered in the training program's curriculum (Area C). Appel discussed these unrelated areas of competencies as follows:

> Because of the variety of requirements for different job settings, portions of the curriculum will always exist which will never by used in particular jobs by some graduates. There will also always be on-the-job requirements that it would not be appropriate to include in the curriculum, either because they are required by too few of the graduates or because they are better learned through on-the-job training. Complete correspondence between curriculum and job requirement, therefore, may be difficult to achieve and, in fact, may not be desirable (pp. 1-5).

The AHES medical transcriptionist study is based on this feedback process where a task inventory analysis on transcriptionist preparation related to job requirements could identify areas of competencies that are best met by either the educational program or through on-the-job training. The difference in this process as related to the AHES study, is that the investigator used a conceptual programmatic feedback approach, by comparing the college and medical records department administrator's views on task importance for transcriptionists.

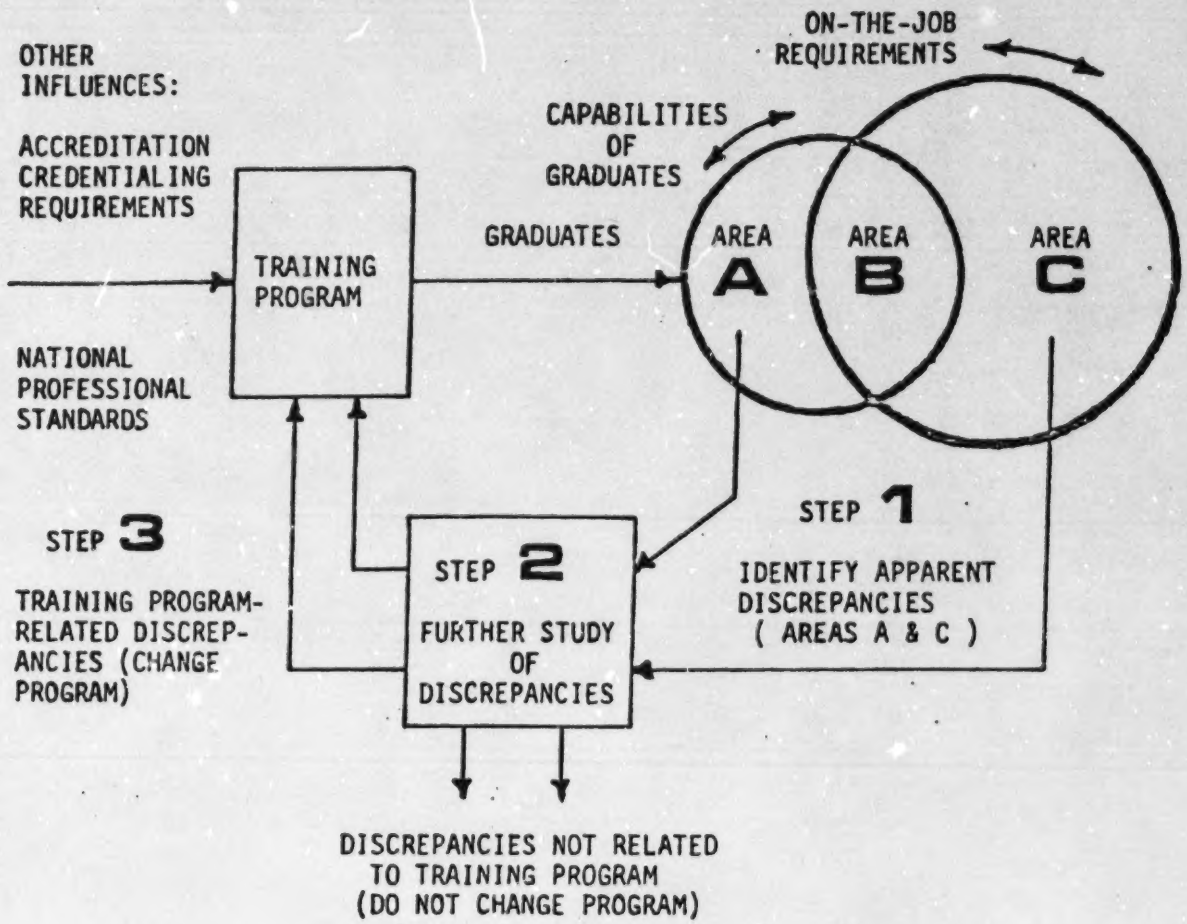

FIGURE 1

THE GRADUATE FEEDBACK PROCESS

Reproduced with permission of the author.
From: Appel, G.L., Sippel, C.L., and von Kuster, Jr., T.W. Medical Records Technicians: An Evaluation of Curriculum Relevance and Labor Market Conditions. Interstudy, Minneapolis, Minnesota, June, 1976.

METHODOLOGY

A survey questionnaire was developed by modifying an extensive medical records task inventory designed by Gosman, et al. in 1970 for a UCLA study on medical records personnel. The AHES study consisted of a select list of 85 tasks that would most likely be performed by medical records personnel at the clerical level. Tasks normally performed by medical records administrators and technicians were omitted from the study.

The study was limited to the Champaign-Urbana, Illinois, area since the purpose of this investigation concerned competencies of local medical transcriptionist graduates as related to job requirements by local employers. The survey sample consisted of a select group of three local hospital medical records departments and a neighboring community college offering a medical transcriptionist education program.

The survey (Appendix A) was conducted by interviewing the medical records administrators at the three hospitals and the coordinator of the college program. The objective of the survey was to have the medical records administrators identify the type of personnel performing each task with subsequent frequency of time allotted in performing this task. The same questionnaire was presented to the department head of the college training program with instructions to identify the tasks covered by the educational objectives of the one-year certificate and two-year degree programs. The frequency response, in this case, was related to the amount of teaching time allocated to prepare a student for the task.

The one-year certificate program was an Office Services Curriculum having a Medical Transcriptionist Option. The two-year Associate Degree Program was a Secretarial Science Curriculum having a Medical Secretary

Option. The Medical Secretary Program was included in this study because its graduates were employed in transcriptionist positions prior to the recently implemented one-year Medical Transcriptionist Option. Medical secretaries would otherwise be employed in physicians' offices or as secretarial clerks in medical records and other related departments in the hospital.

The findings of the task inventory analysis resulted in the development of a second questionnaire (Appendix B), selecting only those tasks identified by the medical records administrators as being delegated to transcriptionists. The second questionnaire consisting of 16 selected tasks, was submitted to the three administrators asking them to identify the importance of each task as related to its performance by medical transcriptionist personnel. They were also asked to identify whether educational preparation for the task was inadequate, adequate, over trained, or that the task be the responsibility of an in-service training program. An identical questionnaire was presented to the college staff member with instructions to rate each task on its potential importance for employment, as well as whether the tasks were adequately covered in the curriculum or if they should be more appropriately taught in a hospital in-service training program.

The second questionnaire was a modification of Appel, et al. (1974) task preparedness study that was used to evaluate medical records technician curricula by surveying employed program graduates and their respective supervisors.

ANALYSIS AND DISCUSSION

In an effort to clarify some of the problems related to employment of medical transcriptionists in the Champaign-Urbana area, medical records administrators from the three largest hospitals were interviewed using a

structured task questionnaire. This questionnaire was used to identify essential transcriptionist functions as well as those tasks performed by non-transcriptionist personnel. There were also a number of tasks that were shared between transcriptionist and non-transcriptionist personnel.

The following data shows the breakdown of the categories of non-administrative medical records personnel employed by the medical records departments and the types of tasks delegated to them.

Job Titles Used in Local Medical Records Departments

Administrators were asked to identify the positions of non-administrative personnel employed in their medical records departments. The positions were identified as follows:

Transcriptionist	Medical Record Clerk
Insurance Clerk	File Clerk
Discharge Clerk	Medical Transcriptionist
Admissions Clerk	Clerk I
Coding and Abstracting Clerk	Clerk II
	Medical Record Practitioner
Outpatient Clerk	Medical Record Secretary (certified)
Statistical Clerk	
Microfilmer	Medical Record Secretary (non-certified)
Medical Secretary	

These job titles were classified into two basic groups. The first group consists of various medical records clerks involved in filing, coding, abstracting, verifying, and other general processing tasks. These tasks require some ability to understand medical terminology (for coding and abstracting) and to understand and use filing systems correctly. Other tasks involve completing required forms, verifying authorizations and essential information, and other more general tasks which require the personnel to follow a prescribed routine. The second group consists of medical records transcriptionists who performed specialized and exclusive tasks. These individuals received special preparation in an approved educational program or through on-the-job experience.

Tasks Not Performed by Personnel in Medical Records Departments

The first structured interviews with medical records departments administrators provided valuable information on the types of personnel performing specific tasks. Since a national survey was used as the basis for outlining tasks performed by medical records departments, the original list included several tasks which are not usually performed by the local medical records departments. These tasks are as follows:

Filing index cards by color code
Filing EDP stored materials
Adding new sheets to charts as necessary
Stapling laboratory slips in proper place on laboratory sheet
Preparing admission charts
Insuring that charts and allied materials are forwarded where necessary
Securing admission information, e.g., patient's name, address, diagnosis, etc. upon receipt of admission order
Verifying insurance information
Verifying credit rating to determine deposit procedure
Securing old patient folder if a readmission
Following preadmission policy
Assigning admission number to patient
Preparing admission packet
Sorting admission information to be distributed to appropriate departments
Transcribing from shorthand notes
Transcribing using manual typewriter
Typing insurance diagnosis on forms for the business office
Abstracting information onto insurance forms
Preparing certificates or affidavits for third parties and authorized requestors
Maintaining manually physicians' index
Maintaining manually registers, e.g., birth, death
Maintaining manually tumor registry
Recording results of PKU test on birth certificate and filing in patient chart

As can be inferred from this list, most admissions, charting, and business office tasks are not considered the responsibility of the local medical records departments. Also, these departments do not use manual equipment or

techniques. Comparing these tasks to the national survey, these departments are specialized and utilize sophisticated technology in carring out their duties.

Tasks Performed by Non-Transcriptionist Personnel

The data made it possible to define those tasks which were performed in the medical records department by non-transcriptionist personnel. These tasks can be considered as functions which are essential to the operation of the medical records department. Tasks performed by clerks or less specialized personnel include:

Filing of correspondence and memoranda
File original record or individual patient within the facility
File using straight numerical system
File using alphabetical system
File index cards alphabetically
File index cards chronologically
File index cards straight numerically
File microfilmed rolls or individual cards
Check current inpatient records for completion
Prepare chart to accompany patient upon transfer
Insure that all doctors' orders are authenticated and affixed to chart
If a new admission, prepare new patient folder
Abstract information from delivery register
Obtain additional information from parent or other informant
Type certificate
Present certificate for signature of informant
File complete certificate with Health Department
Present certificate for signature of informant
File completed certificate with Health Department
Complete and deliver complimentary birth certificate
Direct photocopy or abstract request to other departments for completion, e.g., X-ray, Pathology, Radiation Therapy, etc.
Prepare information for subpeona
Assemble record in proper order
Check record for deficiencies
Prepare deficiency check-off list
Abstract information from record onto data-processing source document
Notify physicians concerning incomplete records
Effect completion of records by other departments, e.g., route charts, request missing reports

Maintain disease and operations index
Maintain manually physician index
Prepare period census report

Those tasks identified with more generalized non-transcriptionist and non-administrative personnel are primarily filing tasks related to checking and following-up incomplete patient records. Some of the tasks related to abstracting, indexing, and reporting functions are delegated to these personnel, however, delegation of these tasks are not common among all of the hospitals.

Tasks Performed by the Administrator or Administrative Assistant

Some of the tasks in the national survey are performed by the administrator of administrative assistants at the local hospitals. Portions of these tasks can be assigned to other personnel, but the primary responsibility is that of the professional. These tasks are as follows:

Obtain charts of patients for whom information is requested
Determine whether to photocopy an insurance abstract
Prepare photocopies from patients chart
Prepare daily census
Prepare statistical reports for administration, other departments, medical staff, and other health facilities
Prepare admissions and discharge statistics from census sheets

These are specific tasks which are performed by the administrator in addition to general administrative duties of the department to include supervision, coordination, and training of personnel, as well as outlining methods and procedures and implementing the general policies and practices of the hospitals.

Tasks Performed by Medical Transcriptionists

Finally, it was possible to detail the 16 tasks performed by medical transcriptionists in the local hospitals. These tasks are performed either

exclusively by transcriptionists or are shared among other personnel. The tasks having shared responsibility include:

Typing general correspondence
Ordering office supplies, equipment, furniture, and medical record material
Handling telephone calls
Filing items into individual patient records
Performing filing, mailing, and charting functions
Changing discs, belts, or tapes on recording equipment

Since these tasks are shared among several personnel in the medical records departments, they cannot be considered essential to the specialized function of medical transcriptionists but are additional duties which are performed when the need arises or when other personnel are not available. Although these tasks can be handled adequately by non-transcriptionist personnel, transcriptionists should have the ability to perform them if and when the need arises.

Tasks which are exclusively delegated to medical transcriptionists are the key to employment in these departments, since no other non-administrative personnel in the department have the required training or ability to perform these tasks. As expected, these tasks are primarily related to medical transcribing as follows:

Transcribe from recording machines using magnetic belts, recording discs, or tapes
Transcribe using electric typewriter
Transcribe using magnetic type selector typewriter
Transcribe histories and physicals
Transcribe consultation and discharge summaries
Transcribe operative reports
Transcribe medical correspondence
Transcribe ancillary departmental reports, e.g., X-ray, Pathology
Maintain daily production record
Maintain an abstract ledger

Four of these tasks are not of primary importance because the tasks are performed only rarely or are unique to a specific hospital. These tasks are:

Transcribing medical correspondence
Transcribing ancillary departmental reports
Maintaining daily production records
Maintaining an abstract ledger

Tasks Exclusively and Frequently Performed by Transcriptionists

The investigators identified six tasks exclusively and frequently performed by medical transcriptionists at all of the hospitals. Three of the tasks are related to competence in using the tools of transcribing, e.g., recording machines, magnetic belts, recorded discs or tapes, electric typewriters, and magnetic type selector typewriters. The remaining three tasks are related to cognitive skills in the specific content areas of medical transcribing, e.g., histories and physicals, consultation and discharge summaries, and operative reports. These tasks are of primary importance in evaluating the supply/demand relationships of the local job market, indicating specialized skills which are not available from other clerical personnel. This places a specialized demand on the local labor market to supply manpower with these skills and competencies necessary for performing these tasks. The inability to locate and employ qualified manpower from the local labor market or from other areas presents critical problems for information processing in the hospitals' medical records departments.

Task Analysis by College Coordinator

A similar task questionnaire was presented to the community college program coordinator, with instructions to list those tasks meeting the instructional objectives as well as the relative importance given to each task

in the instructional program. The findings showed that the college program was preparing the students for a broader employment area than was specifically required by the medical records departments' needs. This broader preparation of students was anticipated, since the college program for both 1-year and 2-year students was a much broader curriculum in Office Services and Secretarial Sciences which allowed interested students to elect to major in the medically related options. However, the six tasks that were identified as being exclusively and frequently performed by transcriptionists in the medical records department, were also rated as being emphasized in the college program with higher levels of instructional time allocated to those students electing to take the medical option.

Task Importance and Adequacy of Training

The 16 tasks found to be performed by medical transcriptionists at the local medical records departments were the subject of a second series of structured discussions with the administrators, this time to determine the relative importance and the adequacy of training for performing the tasks. The medical records administrators were asked to rate the relative importance of the tasks performed by the transcriptionists. The administrators were also asked if their transcriptionists were adequately prepared to perform the tasks.

As explained in the analysis of the first phase of interviews, the general departmental tasks such as typing general correspondence, handling telephone calls, filing, and ordering supplies are only rarely or sometimes performed by transcriptionists and are usually shared among several types of personnel, including transcriptionists. The administrators believed that it was important for the transcriptionists to know how to perform these tasks

prior to their employment. For transcriptionists who did not have prior training or experience for these tasks, on-the-job training was available. However, when the administrators were asked how important formal training was in selecting a person to fill a transcriptionist position, two out of the three indicated that formal training was required.

The six tasks which were found to be exclusively and frequently performed by medical transcriptionists were all rated as very important. However, when asked whether the medical transcribing personnel had adequate training prior to employment, two of the three administrators felt that for three of the tasks (transcribing histories and physicals, transcribing consultation and discharge summaries, and transcribing operative reports), their personnel seemed to be under-trained. The transcriptionists performed adequately on operation of typewriters and recording equipment. However, the transcriptionists exhibited lack of skills in performing the specific content areas of medical histories, physicals, consultations, discharges, and surgical operations. These tasks required the ability to comprehend medical terminology necessary to transcribe and verify medical diction and technical reports. Comprehension of medical terminology, therefore, was the basic competency generally missing from the pre-employment education and training of these personnel.

A similar questionnaire was also presented to the local college coordinator. In terms of task importance, the 1-year program ratings appeared to be more consistant with the medical records administrators' ratings for the 16 transcriptionist tasks, than were the 2-year program ratings. For those tasks rated as less important by the medical records administrators, such as general office tasks, the college coordinator had also rated them

as being less important for the 1-year program, however, the ratings were higher for the 2-year program. This trend was anticipated, since the 2-year program was preparing medical secretarial personnel requiring broader preparation in general office secretarial skills that was not essential for the medical transcriptionist. The six exclusive tasks for the medical transcriptionists were rated as very important by the college coordinator for both programs, however, the 1-year program showed a slightly higher importance rating for the six tasks than did the 2-year program.

A comparison of task importance ratings for the hospital medical records departments and the community college programs is identified in TABLE 1. The data are based on a 7 point rating scale of "1" as not important, "4" being moderately important and a maximum of "7" as very important for task performance. A combined mean rating value portrayed the average ratings for the three medical records administrators. The college coordinators ratings for the 1-year and 2-year programs are reported separately. An asterisk indicates the six tasks identified as being exclusively and frequently performed by the medical transcriptionists.

The portion of the questionnaire on task preparedness did not display the same consistency between hospital and college responses as was evident for task importance. There was a discrepancy in the interpretation of the three tasks on transcribing histories and physicals, transcribing consultation and discharge summaries, and transcribing operative reports. The college coordinator indicated that the students were adequately trained to perform these tasks, whereas, the medical records administrators felt that transcribing personnel were under-trained for the performance of these tasks. Therefore, the disagreement in transcriptionist preparation involved those

TABLE 1

Task Importance Ratings of Medical Transcriptionists

1 = Not Important 4 = Moderately Important 7 = Very Important

		Hospitals (Mean Value)	College Program 1-Yr	2-Yr
1.	Type general correspondence	3.00	1.0	4.0
2.	Order office supplies, equipment, furniture and medical records materials	2.00	1.0	4.0
3.	Handle telephone calls	2.67	1.0	4.0
4.	File items into individual patient records	4.00	7.0	7.0
*5.	Transcribe from recording machines using magnetic belts, recorded discs or tapes	7.00	7.0	4.0
*6.	Transcribe using electric typewriter	6.67	7.0	7.0
*7.	Transcribe using magnetic tape selector typewriter	6.00	5.0	5.0
*8.	Transcribe histories and physicals	7.00	7.0	6.0
*9.	Transcribe consultation and discharge summaries	7.00	7.0	7.0
*10.	Transcribe operative reports	7.00	7.0	7.0
11.	Transcribe medical correspondence	6.00	1.0	6.0
12.	Transcribe ancillary departmental reports, e.g. x-ray, pathology	3.00	2.0	6.0
13.	Maintain daily production record	3.00	3.0	5.0
14.	Perform filing, mailing and charting function	5.00	1.0	4.0
15.	Change discs, belts or types on recording equipment	3.00	7.0	7.0
16.	Maintain an abstract ledger	2.67	1.0	4.0

*Tasks rated as exclusively and frequently performed by medical transcriptionists in the local medical records departments

tasks requiring interpretation of medical diction and technical reports. As mentioned earlier, these three tasks required the transcriptionist's comprehension of medical terminology.

The medical records administrators gave their opinions on what the medical transcriptionist training program could do to better prepare their students for employment. Their recommendations were as follows:

-Have a good background in medical terminology and spelling.
-Good transcribing ability, accuracy is important.
-Training in medical terminology.
-More training in grammar and spelling.
-More emphasis on terminology related to anatomy and physiology.
-More training using reference materials.
-More training with practical transcription, i.e., foreign diction, poor diction.
-More training in use of good grammar.

It was evident that most of the concerns for the transcriptionist's task preparedness centered around medical terminology, use of reference materials, grammar and ability to interpret diction.

In reference to the programmatic feedback process that was referred to earlier in this study, Area A can be considered the academic environment, Area C is referred to as the "real world," or medical records employment and the interaction of the two, Area B, is where mutual agreement lies in the transcriptionists' preparedness. The transcriptionist's skills in transcribing medically related material using medical terminology, reference materials, grammar and ability to interpret diction could be classified into Areas A, B and C. For example, in the transcriptionist's educational preparation, there are many skills taught in the Office Services Curriculum that do not necessarily relate to the medical records employment, but are necessary to be learned as general business skills. These general skills might be classified into Area A and can be referred to as general transcribing

functions and use of basic reference material. On the other hand, Area C, the "real world" requires some skills that are not normally taught in the educational program, such as the ability to interpret diction qualities that are unique to a particular setting, i.e. foreign accents, inappropriate use of diction skills and other characteristics that might involve less than perfect diction. The interacting Area B is the region of agreement between the academic environment (A) and "real world" environment (C) that provides medical transcribing qualities characterizing an articulate, grammatically correct diction quality. The transcriptionist's skills falling into Area B are, therefore, acquired from a perfect learning situation of using packaged programs available to educational institutions. The transcriptionists have medical transcribing knowledge, but in an environment where diction tapes are presented to the students using slow, clear and concise diction technique. Although these skills that are taught in the college program might also be useful to the employer, there is still the question of the less than perfect, or unique skills that have to be developed to function effectively in the "real world." The problem is, does the educational program have the responsibility to prepare its students for unique, imperfect on-the-job requirements, or is the employer accountable for on-the-job training programs to orient and familiarize new employees to unique employment situations.

Employment of Transcriptionists in Medical Records Departments

The employment market for medical transcriptionists is a key to discussing possible changes in curriculum or on-the-job training. A determination of the actual numbers of transcriptionists employed, levels of salaries or wages, and other characteristics of the labor market may have implications for program priorities when compared to employment in other sectors of the

secretarial market. Although current employment data for the total market for secretarial and clerical workers is not always available or applicable for small area planning, data which does exist can be used to promote discussion about supply/demand characteristics.

Regional Employment of Clerical Personnel

For 1975 and 1976, an interagency task force including the Governor's Office of Manpower and Human Development, Illinois Bureau of the Budget, Division of Vocational and Technical Education, and the Illinois State Employment Service, compiled employment projections for various industries by planning regions. Employment projections for "health record technologists and technicians" and "medical secretaries" were included. These statistics were derived using dicennial census employment data from a 20% sampling of all industries and then projected for the entire region. Champaign County is found in Region 8 (see FIGURE 2), which comprises the counties of Champaign, Ford, Iroquois, Kankakee, Piatt and Vermilion, which includes the local labor markets for graduates of medical-option secretarial programs at Parkland College, Danville Junior College and Kankakee Community College.

The regional industry projections were based on responses by local establishments to complex factors inside and outside the region and on assumptions concerning the general behavior of the national economy, industrial trends at the national level, and historical shifts and advantages within each industry. These projections were made for long term planning, primarily because random events such as major openings and closings of establishments cannot be predicted in every case. Caution is advised, therefore, in using these statistics for specific local planning. General regional statistics are not completely useful for planning in the specific Champaign-Urbana area,

Page 19 (Figure 2. A map of Region 8--designated by Governor's Office on Manpower for employment projections) was removed prior to the document's submission to the ERIC Document Reproduction Service.

however, since they do reflect an empirically-based picture of demand, the statistics can be useful as an overview for the specific supply/demand problems of the local market.

Projections of total employment for Region 8 shows the outlook for health records technologists and technicians and for medical records secretaries as follows:

TABLE 2

Employment Projections For Region 8
Health Record Technologists and Technicians
and Medical Secretaries

Occupational Type	Total Employment		Employment Demand 1976-1981		
	1976	1981	Total Demand	Expansion	Replacement
Health Records Technologists and Technicians	52	67	33	15	18
Medical Secretaries	160	186	78	26	52
Total Employment	212	253	111	41	70

Both categories of workers were displayed in order to reflect a total demand for general and specialized clerical manpower in the medical field. As can be seen from the projections, total demand for new manpower is expected to be 111 with 41 positions due to expansion and 70 positions due to job turnover. Of this number, 33 new health records technologists and technicians will be needed and 78 new medical secretaries. In looking at job turnover or replacement positions, turnover is expected to be approximately twice as high as expansion positions in the medical secretary area. Job turnover in the health records technologist and technician area is expected to be approximately equal.

As explained earlier, these data are projected from census employment figures for 1970 from a 20% sample of employers. In this case, the employers in the 20% sample primarily consisted of the institutional employers such as hospitals, medical laboratories and blood banks, zone centers, clinics, and nursing homes. Individual employers such as physicians were also sampled and are the most important factor in the employment of medical secretaries. Health records technologists and technicians are almost exclusively employed by hospitals in this region. Medical transcriptionists are usually considered a subgroup of technologists or technicians, although a few institutional employers, as was found in the local interviews, might categorize a transcriptionist as a medical secretary. For this reason, total employment and demand for both types of personnel were included.

Regional supply of trained medical transcriptionists to meet the expected demand was found to be limited. This is not unusual since training in medical terminology and transcribing procedures has historically taken place in the hospital, except in metropolitan areas with large concentration of hospital beds and, hence, a large concentration demand for trained specialists. The 1975 Directory of Education Programs in the Health Fields from the board of higher education shows seven medical record technician programs (Assoc.) and two medical transcription programs (Cert.), all except one located in the Chicago area. In Region 8 there are three community colleges offering a two-year secretarial program: Parkland College, Danville Junior College, and Kankakee Community College. One-year transcription programs are also offered. Parkland College and Danville Junior College have recently added options for those students who want to enter the medical field, however, only Parkland has graduated students to date. Kankakee

offers only a course in medical terminology. Danville estimates that about 3 or 4 of the secretarial graduates are absorbed by the medical community in that district, and that none were employed by hospitals as transcriptionists. Kankakee only has about 5 graduates per year in their general secretary curriculum (even though a large number of other majors take secretary courses) and that none of the secretarial graduates were employed in the health field. It was not possible to determine whether there were graduates from other majors who took health-related positions.

Using the above information, it is estimated that no more than two to five graduates in the past year have had some training for, and gained employment, in the medical records field in this region. In estimating from the 5-year projection noted above, there were only about 5 jobs available for health records technologists and technicians and about 12 positions available for medical secretaries in 1975-76. This shows a small deficit in the supply of trained health records and medical secretary personnel, however, the total demand may not completely reflect the need for prior medical training. For example, employers may desire only competent clerical skills as entering competencies and thus prefer to train the required medically-related competencies on-the-job. Keeping this possiblity in mind, demand may actually be equal to supply. On the other hand, if individual employers are unsatisfied with the basic competencies of generally-trained personnel and require specific medical training in terminology, procedures, insurance, etc., the above may not show the extent of the deficit since the numbers show head counts and not competencies or qualifications. Employers might reveal a "qualifications deficit" by pressuring the community college to upgrade, change, or create educational programs to meet these needs.

Employment of Medical Transcriptionists, Parkland College District

The regional employment data are useful for evaluating supply and demand in a wide area which, it is assumed, exhibits characteristics similar to the local area involved in this study. However, given the potential error in the regional estimates it would be difficult to confidently make specific local recommendations in the specialized area of medical transcribing since the numbers are so small. More specific local information is needed before attempting to generalize these findings to the Parkland College District (see FIGURE 3).

Employment in Non-Hospital Settings

It was noted in the previous section that employment of medical transcriptionists appeared to be limited to hospital settings whereas employment of medical secretaries included a wide variety of clinical employers such as physicians and other health professionals, laboratories, nursing homes, etc. In the Parkland College District, data for non-hospital employers is available for large medical clinics for 1974 and 1976 and for nursing homes in 1976. These data were collected in two surveys by the Board of Higher Education under grants from the Illinois Regional Medical Program, the Area Health Education System, and the Illinois Hospital Association and included in a statewide data collection system known as the Health Education Information System (HEIS).

Employers were asked to provide head counts for full-time and part-time personnel in the defined categories. In the medical records area, employers were given three types of personnel definitions: medical records administrator, medical records technician, and medical records transcriptionist.

Page 24 (Figure 3. Parkland College District--Illinois Community College District #505) was removed prior to the document's submission to the ERIC Document Reproduction Service.

Stipulated definitions for these personnel were given to employers as follows:

Medical Record Administrator
Plans, designs, develops, and manages systems of patient information, administrative and clinical statistical data, and patient medical records, in all types of health care institutions.

Medical Record Technician
Serves as the skilled assistant to the medical record administrator carrying out the technical work of coding, analyzing and preserving patients' medical records, and compiling reports, disease indices, and statistics in health care institutions.

Medical Transcriptionist
Skilled in typing, medical spelling, medical terminology, and the proper format of medical records and reports; prepared to transcribe medical dictation using mechanical dictating equipment.

The 1976 data shows that there were no transcriptionists employed in nursing homes in the Parkland College District. In Champaign County alone there were approximately 1,141 nursing home beds in 1976. Approximately 800 of those beds were for skilled nursing home care, which is defined as a level of long term care providing continuous skilled nursing observations, continuous or frequent medical observation and supervision for patients in a post-acute phase of illness. Services may also include diagnosis and treatment for acute phases of long-term illnesses if the nursing home is associated with an acute care hospital or a distinct bed unit of a general hospital. Since none of the nursing homes are hospital-operated in the Parkland District, it can be assumed that diagnosis and treatment of acute problems is not provided. This would reduce the over-all need for medical transcriptionists, however, considering the continuous or frequent medical and nursing observations required under post-acute services, at least some

employment of transcriptionists was expected. Data for 1976 shows that the only type of trained medical records personnel which may be employed in nursing homes is a medical records administrator (RRA) as a consultant.

In 1974 two other non-hospital employers in the Parkland College District were surveyed. One of the employers was a hospital for mental health patients which had a few beds for inpatient purposes but were primarily day-care oriented. The other non-hospital employer was a large group practice clinic. It was found that there was no transcriptionist employed in the mental health facility, but that 17 "transcriptionists" were employed in the clinic. A follow-up of that survey revealed that the clinic employed those personnel as medical secretaries, and medical transcription was only one of the overall functions. Other duties included general medical office functions such as a large amount of correspondence, billing and filing. Although transcription is one of the major functions, it is not an exclusive one.

Data from the hospitals reveal more accurate information on employment. Personal interviews were conducted at each hospital for the 1974 survey so that definitions of the type of personnel were fully explained and, in some cases, on-site visits were made to various departments in additions to interviews with the administrator of personnel director. The 1976 survey offered the option of a personal interviewer or other consultation for those employers who had not participated in the earlier survey or who, for other reasons, required further information. Hospitals in the Parkland College District were surveyed in the 1974 and 1976 studies are as follows:

TABLE 3

Hospitals In Parkland College District Surveyed By Board of Higher Education: 1974 and 1976

Hospitals	Surveyed in 1974	Surveyed in 1976
Burnham City	X	X
Carle Foundation	X	X
Cole	X	X
Douglas County	X	X
Gibson City	X	X
J. & M. Kirby	X	
McKinley (U. of I.)	X	X
Mercy	X	X
Paxton	X	X
USAF, Chanute	X	

Although the John and Mary E. Kirby Hospital and the Air Force Hospital did not participate in the 1976 survey, it is possible to estimate the number of transcriptionists employed using the 1974 data.

Based on the 1974 and 1976 data, the following employment picture can be derived:

TABLE 4

Medical Records Employment
Parkland College District Hospitals:
1974 and 1976

Type of Personnel	1974		1976	
	Full-Time	Part-Time	Full-Time	Part-Time
Medical Records Administrator	9		9	
Medical Records Technician	18	4	14	2
Medical Records Transcriptionist	21		21	

While employment of medical records administrators has remained the same, a slight decline has occurred in employment of technicians, while a slight increase has occurred in the employment of transcriptionists.

This compares to the trend at the state level which shows over 140 budgeted vacancies for medical transcriptionists in Illinois hospitals while vacancies for medical technicians were less than 60. At the state level there were approximately 60 graduates from the seven associate degree technician programs and only 1 graduate from the 2 certificate-level programs listed in the 1976 edition of the Board of Higher Education's Directory of Educational Programs in the Health Fields.

The apparent lack of transcriptionist graduates is accounted for by several factors. First of all, one of the programs listed was new and did not have graduates in 1975. In looking at other data for the two programs listed, it is noted that 32 students were enrolled in 1974/75 and that the programs had a capacity of 55 students. Considering that these programs are one year in duration, it can be estimated that 32 students could have graduated by 6/1/76 to fill some of the 140 positions that were available at that time. This seems to indicate an extensive unmet demand in the transcriptionist field, while the supply of technicians is about equal to demand in the institutions surveyed. The demand may be slightly higher since approximately 20 to 25 percent of the hospitals in Illinois did not respond to the 1976 survey. Conversely, two other factors may be considered in estimating the possibility for a lower unmet demand for college programs. First, the Board of Higher Education relied primarily on self-reporting of community colleges, so it is possible that some programs were not reported. Another factor is the extensive employment of non-college trained

transcriptionists. The assumption can be tentatively made, however, that hospitals would have employed college trained transcriptionists had such graduates been available. For an overview of how supply and demand for transcriptionists compares with other allied health fields see APPENDIX D .

The entry-level minimum wage expectancy for a medical transcriptionist was found to be $3.16 per hour in the Champaign-Urbana area. The maximum entry-level wage was $4.32. After fulfilling the maximum experience requirements, a transcriptionist can earn from $3.46 to $4.79 per hour. Weighting the supply/demand and wage characteristics of the Parkland District market, administrators assessed the difficulty of replacing existing personnel and the opportunity to find additional qualified personnel for medical records transcription in the local area. One of the hospitals consistently recruited trained transcriptionists from outside of the community college district.

In the four, non-federal, rural hospitals outside of the Champaign-Urbana area, the smaller hospitals do not employ transcriptionists nor do the administrators feel that the position would be difficult to replace. The Air Force Hospital at Chanute, likewise, does not have problems with filling their positions. This would not be an unlikely response since both civilian and non-civilian personnel are employed. This means that the need for transcriptionist-level personnel is limited to the local labor market in the Champaign-Urbana area. Total transcriptionist positions available in these hospitals comprise 19 out of the 24 jobs available in the district.

RECOMMENDATIONS

The investigators of this study have proposed the following recommendations:

1. The community college staff should evaluate the Office Services Curriculum relating to the medical transcription option with the intent for strengthening skills required for medical transcription employment:

   A. Courses such as BUS 253 Duplicating Techniques and BUS 256 Business Machine Computations along with the elective component might be discontinued to release 5 to 9 credit hours for some form of internship program with local medical records departments to expose the students to the "real world" environment. This internship would expose the students to the imperfect day-to-day atmosphere of how a medical records department functions as a component of hospital services.
   B. The college program staff should seek collaboration with local medical records administrators to acquire actual diction material to be used in the medical transcribing course, SEC 252.

2. The medical records administrators should attempt to meet with the community college staff to establish a cooperative program to:

   A. Help establish some form of internship program for the medical transcription students that would be compatible to both the hospital and the college program's schedule.
   B. To provide edited diction material for use in the college's transcribing course, i.e. removing patient identity from the material, yet providing students with unique diction characteristics that may be experienced in the employment setting.

3. The medical records departments, in cooperation with the college program staff should consider establishing a medical terminology self-instruction program available at the employment setting. For example, the use of PLATO IV with medical terminology program might benefit the continuing education of medical transcriptionists as well as other personnel, both clerical and professional, who require medical terminology skills.

4. The faculty and medical records administrators should work closely in the development of potential job opportunities for medical transcriptionist graduates due to the limited nature of the job market in the Champaign-Urbana area. An average of 2 positions per year can be reasonably expected to

be available to qualified medical transcriptionists in the Parkland College District. Smaller rural hospitals are not expected to provide employment opportunities except in special circumstances.

SUMMARY AND CONCLUSIONS

This study identified three tasks exclusively and frequently performed by medical transcriptionists over which there was disagreement between the transcriptionist's task preparation and their on-the-job performance. These tasks were (1) transcribing histories and physicals, (2) transcribing consultation and discharge summaries, and (3) transcribing operative reports. Further analysis identified these three tasks as requiring preparation in medical terminology, use of reference materials, grammar, and ability to interpret diction.

In order to alleviate this disagreement, the investigators recommended collaboration between the community college program staff and medical records administrators, since neither party could or should be expected to individually resolve the problem. The college program is committed to educating the students in a broader scope, to enable their graduates to gain employment in a variety of settings. The medical records departments do not wish to incur total responsibility for educating personnel through on-the-job training programs. Therefore, the best alternative appears to be a compromise between the college staff and medical records administrators to cooperate in those areas where unique job requirements cannot be adequately prepared for in the academic setting.

Preparing the student for practical, on-the-job experience requires exposing the student to the actual employment environment. For example, a brief internship through a medical records department can provide the student with the "real world" exposure, so that the students will become aware of their expected performance in the employment setting. Use of actual edited dictation from the employment setting will also provide students with

those unique or imperfect transcribing experiences not available from commercially-prepared instructional aids.

A possible aid to on-the-job training would be an interactive tutorial communications system such as PLATO IV. Since the PLATO IV system utilizes a typewriter format identical to that already used at the hospital setting, keyboard skills such as speed and accuracy could be immediately assessed and improved at the terminal, saving the administrator's and supervisor's time for the vital non-educational duties which are their primary responsibility. Self-instruction programs on medical terminology, using PLATO IV, could be made available at the site of employment, for use as supplimentary instruction for transcriptionists as well as other personnel requiring knowledge of medical terminology.

Cooperation between the college program staff and the medical records administrators appears to be the best alternative in the preparation of medical transcriptionist students for local employment.

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APPENDIX A:

Medical Records Personnel Task Analysis Questionnaire

The key to the task list and the job titles precedes the responses to the questionnaire.

I. PERFORMING GENERAL OFFICE TASKS

1. Type general correspondence.
2. Handle and distribute mail and correspondence (both incoming and outgoing.
3. Set up and maintain filing system for correspondence, memoranda, directives and publications.
4. File correspondence and memoranda.
5. Order office supplies, equipment, furniture, and Medical Records materials.
6. Type requisitions.
7. Handle telephone calls.

II. PERFORMING RECORD STORAGE AND RETRIEVAL

8. File original record of individual patient within the facility.
9. File using straight numerical system.
10. File using terminal digit system.
11. File using alphabetical system.
12. File items into individual patient record.
13. File index cards phonetically.
14. File index cards alphabetically.
15. File index cards chronologically.
16. File index cards by color code.
17. File index cards straight numerically.
18. File index cards by marginal punch.
19. File correspondence and reports.
20. File microfilmed rolls or individual cards.
21. File EDP stored materials.

III. PERFORMING WARD CLERK TASKS

22. Check current inpatient records for completion.
23. Add new sheets to charts as necessary.
24. Staple laboratory slips in proper place on laboratory sheet.
25. Prepare admissions charts.

26. Prepare chart to accompany patient upon transfer.
27. Insure that all Doctors' orders are authenticated and affixed to chart.
28. Insure that chart and allied materials are forwarded to Medical Records.

IV. PERFORMING ADMISSION TASKS

29. Upon receipt of admission order, secure admission information, e.g., patient's name, address, diagnosis, etc.
30. Verify insurance information.
31. Verify credit rating to determine deposit procedure.
32. If a readmission, secure old patient folder from Medical Records Department.

33. If a new admission, prepare new patient folder.
34. Follow preadmission policy.
35. Assign admission number to patient.
36. Prepare admission packet.
37. Sort admission information to be distributed to appropriate departments, e.g., Patient's name, Room Number, Doctor, Diagnosis, Next of Kin, etc.

V. TRANSCRIBING MEDICAL REPORTS

38. Transcribe from shorthand notes.
39. Transcribe from recording machines using magnetic belts, recorded discs, or tapes.
40. Transcribe using manual typewriter.
41. Transcribe using electric typewriter.
42. Transcribe using magnetic tape selector typewriter.
43. Transcribe histories and physicals.
44. Transcribe consultation and discharge summaries.
45. Transcribe operative reports.
46. Transcribe medical correspondence.
47. Transcribe ancillary departmental reports, e.g., X-ray, Pathology.
48. Maintain daily production record.
49. Perform filing, mailing, and charting functions.
50. Change discs, belts, or tapes on recording equipment.

VI. PREPARING BIRTH AND DEATH CERTIFICATES

51. Abstract information from delivery register.
52. Obtain additional information from parent or other informant.
53. Type certificate.
54. Present certificate for signature of informant.
55. File completed certificate with Health Department.
56. Complete and deliver complimentary birth certificate.
57. Record results of PKU test on birth certificate and file in chart.

VII. RELEASING PATIENT INFORMATION

58. Obtain charts of patients for whom information is requested.
59. Determine whether to photocopy an insurance abstract.
60. Prepare photocpies from patient's chart.
61. Type abstract information onto the abstract form.
62. Direct photocopy or abstract request to other departments for completion, e.g., X-ray, Pathology, Radiation Therapy, etc.
63. Type insurance diagnosis on forms for the Business Office.
64. Abstract information onto insurance forms.
65. Prepare certificates or affidavits for third parties and authorized persons.
66. Maintain an abstract ledger.
67. Prepare information for subpeona.

VIII. PERFORMING CHART PROCESSING TASKS (DISCHARGE PATIENTS)

68. Assemble record in proper order.
69. Check record for deficiencies.
70. Prepare deficiency check-off list.
71. Abstract information from record onto data-processing source document.
72. Notify physicians concerning incomplete records.
73. Effect completion of records by other departments, e.g., route charts, request missing reports.

IX. PREPARING INDEXES AND STATISTICAL REPORTS.

74. Maintain disease and operations index.
75. Maintain manually physicians' index.
76. Maintain manually surgeons' index.
77. Prepare daily census.
78. Prepare period census report.
79. Prepare manually statistical reports for administration.
80. Prepare manually statistical reports for other departments.
81. Prepare manually statistical reports for medical staff.
82. Prepare manually statistical reports for other health facilities.
83. Maintain manually registers, e.g., birth, death.
84. Maintain manually tumor registry.
85. Prepare manually admission and discharge statistics from census sheets.

HOSPITAL A

A. Transcriptionist

B. Medical Secretary

   a. Insurance Clerk
   b. Discharge Clerk
   c. Admissions Clerk
   d. Coding and Abstracting Clerk
   e. Outpatient Clerk
   f. Statistical Clerk
   g. Microfilmer

HOSPITAL B

C. Medical Secretary

D. Medical Record Clerk

E. Medical Record Administrative Assistant

HOSPITAL C

F. File Clerk

G. Medical Transcriptionist

H. Clerk I

I. Clerk II

J. Medical Record Practitioner (Non-Professional)

K. Medical Record Secretary (Certified)

L. Medical Record Secretary (Non-certified)

COMMUNITY COLLEGE

M. 1-Year Certificate Program (Transcriptionist)

N. 2-Year Associate Degree Program (Medical Secretary Option)

● EXCLUSIVELY PERFORMED
● FREQUENTLY PERFORMED
● SOMETIMES PERFORMED
• RARELY PERFORMED

TASK LIST	HOSPITAL A								HOSPITAL B			HOSPITAL C							COMMUNITY COLLEGE	
	A	a	b	c	d	e	f	g	C	D	E	F	G	H	I	J	K	L	M	N
I. PERFORMING GENERAL OFFICE TASKS																				
1					•				•				•						●	●
2											●								●	●
3											●								●	●
4												•		•	•	•	•	•	●	●
5	●										●									
6											●								●	●
7	•	•		•	•					●		•	•	•	•	•	•	•	●	●
III. PERFORMING RECORD STORAGE AND RETRIEVAL																				
8					●					●									●	●
9					●					●									●	●
10																			●	●
11			●	●						●				●					●	●
12	●		●	●		●				●				●	●				●	●
13																				
14			●	●						●				●					●	●
15												•		•	•	•	•		●	●
16																				
17										●									●	●
18																				
19	see # 5									●									●	●
20								●		●									•	•
21																				
III. PERFORMING WARD CLERK TASKS																				
22			●		●															
23																				
24																				
25																				

Trained to maintain filing system only

Filing course taken as elective only

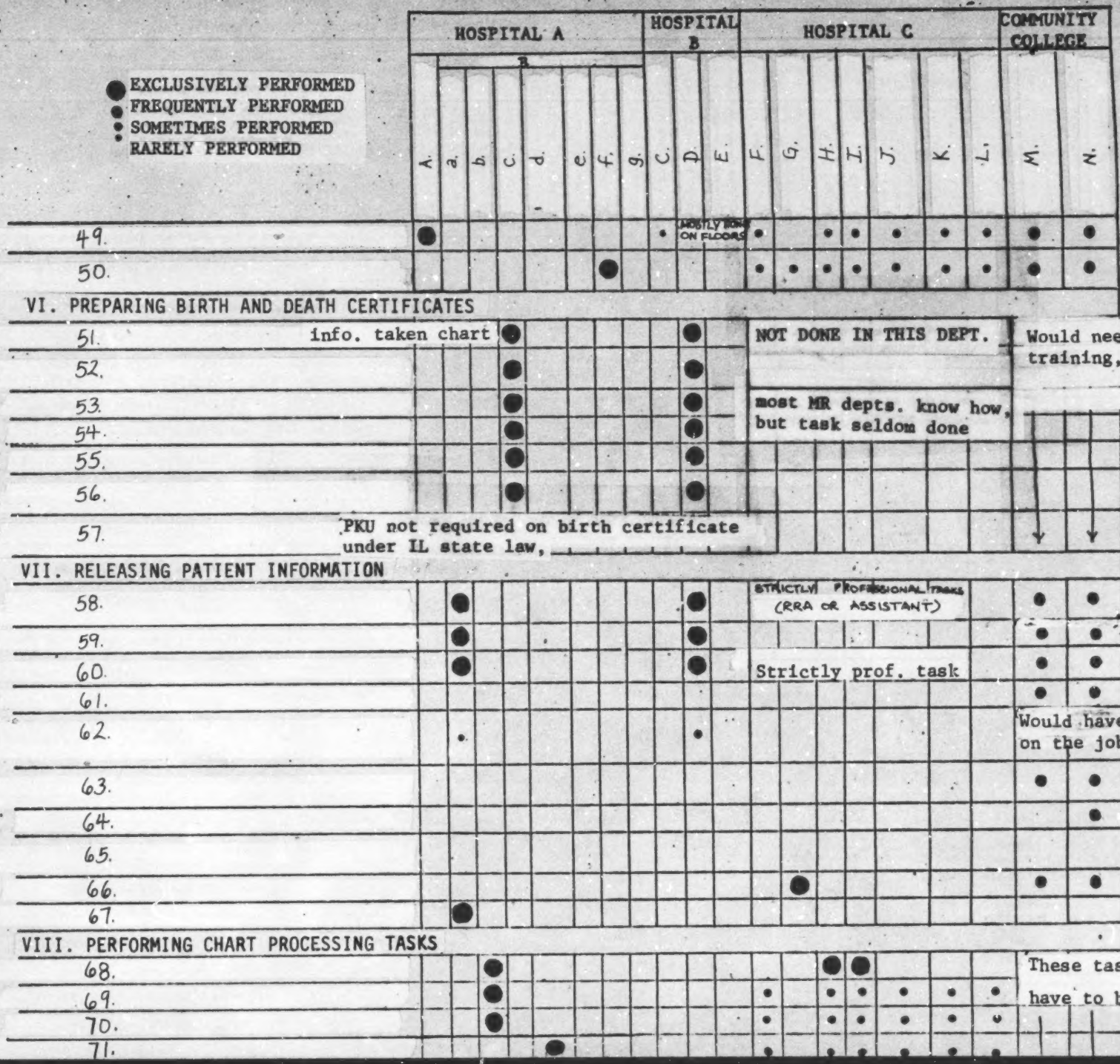
Medical training not this specific

● EXCLUSIVELY PERFORMED
● FREQUENTLY PERFORMED
● SOMETIMES PERFORMED
● RARELY PERFORMED

	HOSPITAL A								HOSPITAL B			HOSPITAL C							COMMUNITY COLLEGE	
	A.	B a.	b.	c.	d.	e.	f.	g.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.
26.												•		•	•	•	•	•		
27.			●		●							•				•	•	•		
28.																			↓	↓
IV. PERFORMING ADMISSION TASKS																				
29.																				
30.																				
31.																				
32.																				
33.				●																
34.																				
35.																				
36.																				
37.																			↓	↓
V. TRANSCRIBING MEDICAL REPORTS																				
38.																				●
39.	●	(Uses tapes exclusively)							●	DICTAPHONE THOUGHT TANK		●							●	●
40.																				
41.	●								●			●							●	●
42.	●											●								●
43.	●								●			●							●	●
44.	●								●			●							●	●
45.	●								●			●							●	●
46.	•								•			•							●	●
47.									•										●	●
48.									●											●

Not specifically taught in either program, however, basic competencies are there for on-the-job orientation

A-2


HOSPITAL A
B
HOSPITAL B
HOSPITAL C
COMMUNITY COLLEGE
A. a. b. c. d. e. f. g. C. D. E. F. G. H. I. J. K. L. M. N.
EXCLUSIVELY PERFORMED
FREQUENTLY PERFORMED
SOMETIMES PERFORMED
RARELY PERFORMED
49.
MOSTLY WORK ON FLOORS
50.
VI. PREPARING BIRTH AND DEATH CERTIFICATES
51. info. taken chart
52.
53.
54.
55.
56.
57. PKU not required on birth certificate under IL state law,
NOT DONE IN THIS DEPT.
Would need on-the-job training, if done
most MR depts. know how, but task seldom done
VII. RELEASING PATIENT INFORMATION
58.
59.
60.
61.
62.
63.
64.
65.
66.
67.
STRICTLY PROFESSIONAL TASKS (RRA OR ASSISTANT)
Strictly prof. task
Filing course
Would have to learn on the job
VIII. PERFORMING CHART PROCESSING TASKS
68.
69.
70.
71.
These tasks would have to be learned on-the-job

● EXCLUSIVELY PERFORMED
● FREQUENTLY PERFORMED
● SOMETIMES PERFORMED
● RARELY PERFORMED

	HOSPITAL A								HOSPITAL B			HOSPITAL C							COMMUNITY COLLEGE	
	A	a	b	c	d	e	f	g	C	D	E	F	G	H	I	J	K	L	M	N
72.						●				●		•		•	•	•	•	•	↓	↓
73.			●							●		•		•	•	•	•	•	↓	↓
IX. PREPARING INDEXES AND STATISTICAL REPORTS																				
74.	use compu ● ter system-use computer system																		basic competency taught in business math for both programs	
75.							●													
76.																				
77.				●						●		done by prof.								
78.				●						●										
79.	done by RRA only										●	done by prof. add'l to computer reports								
80.											●	see 6 above								
81.											●	see 6 above								
82.	done by RRA only										●	see 6 above								
83.																				
84.																				
85.				●							●									

A-4

APPENDIX B:
Medical Transcriptionist Task Importance and Task Preparedness Questionnaire

	TASK IMPORTANCE							CURRICULUM RECOMMENDATION			
	Not Important			Moderately			Very Important	Training not adequate	Adequate	Seems overtrained	Train only on the job (no formal training is appropriate)
	1	2	3	4	5	6	7	1	2	3	4
1. Type general correspondence.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. Order office supplies, equipment, furniture, and Medical Record materials.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. Handle telephone calls.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4. File items into individual patient record.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. Transcribe from recording machines using magnetic belts, recorded discs, or tapes.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6. Transcribe using electric typewriter.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7. Transcribe using magnetic tape selector typewriter.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8. Transcribe histories and physicals.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. Transcribe consultation and discharge summaries.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10. Transcribe operative reports.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11. Transcribe medical correspondence.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
12. Transcribe ancillary departmental reports, e.g., X-ray, Pathology.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13. Maintain daily production record.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
14. Perform filing, mailing, and charting functions.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15. Change discs, belts, or tapes on recording equipment.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
16. Maintain an abstract ledger.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2. What can the medical transcriptionist training program do in preparation of students that would help them fit into your work setting with greater ease?

LABOR MARKET

3. For how many years has your facility employed formally trained medical transcriptionists? Years_____

4. How many medical record personnel are there in your facility?
MRA_____
MRT_____
Other_____

5. How difficult would it be to fill a replacement or new medical transcriptionist position? (circle one)
1 2 3 4 5 6 7
Very Easy ... Very Hard

6. How many new or replacement medical transcriptionists does your facility plan to hire in the coming year.
Replacement_____
New _____

7. What are the present competitive monthly salary requirements for formally trained medical transcriptionists?
Entry level----Minimum $_____
Entry level----Maximum $_____
Experienced----Minumim $_____
Experienced----Maximum $_____

8. How important is formal training in selecting a person to fill a medical transcriptionist's position? (check one)

- Formal training required _____
- Formal training not required but advantageous _____
- Formal training not required but somewhat advantageous _____
- Formal training has little effect on hiring decisions _____

9. What do you see as the advantages of hiring a formally trained medical transcriptionist over one not formally trained? (check all that apply)

- Less on-the-job training is necessary _____
- Needs less supervision at first _____
- Less turnover _____
- Can be assigned more responsibility _____
- Other (specify) _____

_____

_____

10. Please add any further comments.

APPENDIX C:
Response by Type of Task, Type of Respondent, and Level of Response

Explanation

Final data for the sixteen tasks can be grouped into three levels of response. The first level indicates whether the task is taught and emphasized in the community college programs (both the 1- and 2-year) and how frequently the task is performed at each hospital. Also, it was possible to determine whether the task was performed only by medical transcriptionists or whether the task was shared among other types of personnel in the medical records department. The second level of response indicates the importance of the task identified by each of the respondents. The third level of response indicates whether the individuals performing the tasks are adequately trained before employment or whether training for the task should be performed on-the-job (for each of the 16 tasks). The three levels of response can be summarized as follows:

Level I - Frequency of Task Performance:
- Community College: Emphasis on Teaching the Task
- Hospitals: Frequency of Task Performances, Exclusive or Shared Responsibility

Level II - Importance of Task Performance:
- Community College: Importance of Knowing Task For Employment
- Hospitals: Importance of Task Performance In the Medical Records Department

Level III - Adequacy of Training:
- Community College: Whether Training In College Program Is Adequate For Employment
- Hospitals: Whether Prior Training of Employees Is Adequate
- Both Community College and Hospitals: Whether Training Should Be On-The-Job

The reason for identifying the responses into separate clusters was to help distinguish unrelated responses at the various levels. For example, a

task might be only rarely performed by the transcriptionist but at the same time might be moderately or very important for on-the-job performance. The requirement for on-the-job training could only be associated with those responses at Level I or Level II. There appeared to be a significant association with response at Level II (task importance) for the six tasks exclusively and frequently performed by transcriptionists. However, since time-series was not used, it was only possible to establish significant association rather than preponderance of effect. Therefore, it was not possible to determine from the data whether the importance of the task effects its frequency and exclusive performance or whether, conversely, frequency and exclusiveness of the task effects its importance.

In reading the response listing on the following pages, keep in mind that responses at each level may not necessarily be related. For example, a task may be very important for the function of the medical records department but rarely or never performed by the transcriptionist. The community college may respond that a task is important for the graduate to know for employment without emphasizing such training in the program. Response on adequacy of training can appear to be inconsistent on the surface unless one considers the overall objectives of both the college and the hospitals as underlying factors. For example, if the objective of the hospital is to have a fully productive transcriptionist at the end of three weeks orientation, a transcriptionist may not be adequately trained if the graduate of the community college program requires 6 weeks orientation. However, the objective of the community college may be to train transcriptionists for 6 weeks of further job orientation so that, in the opinion of the community college, their graduates would still be adequately trained for the medical

records environment. Also, the medical records department may be making a judgement about employees who are not graduates of the community college program, so that straight comparison is not feasible.

Summarizing the above statements, it is possible to detect areas where there seems to be disagreement among the respondents. Before making judgements about whether the disagreements are significant in making a curriculum or job-training recommendation, underlying assumptions guiding the responses by the educators or employers should be taken into account.

1. Type General Correspondence

Community College, 1-Yr. Program:
Level I: Emphasized in training program
Level II: Not important
Level III: Adequately trained

Community College, 2-Yr. Program:
Level I: Training for gen. corr. emphasized
Level II: Moderately important
Level III: Overtrained

Hospital A:
Level I: Not performed
Level II: Moderately important
Level III: Adequately trained

Hospital B:
Level I: Rarely performed
Level II: Not important
Level III: Adequately trained

Hospital C:
Level I: Sometimes performed
Level II: Moderately important
Level III: Adequately trained

2. Order Office Supplies, Equipment, Furniture, and Medical Record Materials

Community College, 1-Yr. Program:
Level I: Not taught in program
Level II: Not important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Not taught in program
Level II: Moderately important
Level III: Overtrained

Hospital A:
Level I: Frequently performed
Level II: Moderately important
Level III: Adequately trained

Hospital B:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

Hospital C:
Level 1: Not performed
Level II: Not important
Level III: Training adequate

3. Handle Telephone Calls

Community College, 1-Yr. Program:
Level I: Emphasized in program
Level II: Not important
Level III: Overtrained

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Moderately important
Level III: Overtrained

Hospital A:
Level I: Rarely performed
Level II: Not important
Level III: Train on-the-job

Hospital B:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

Hospital C:
Level I: Sometimes performed
Level II: Moderately important
Level III: Train on-the-job

4. File Items Into Individual Patient Records

Community College, 1-Yr. Program:
Level I: (Filing is a program elective)
Level II: Very important
Level III: Adequate training

Community College, 2-Yr. Program:
Level I: (Filing is a program elective)
Level II: Very Important
Level III: Adequate training

Hospital A:
Level I: Frequently performed
Level II: Very important
Level III: Train on-the-job

Hospital B:
Level I: Not performed
Level II: Moderately important
Level III: Train on-the-job

Hospital C:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

5. Transcribe From Recording Machines Using Magnetic Belts, Recorded Discs, or Tapes

Community College, 1-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Moderately important
Level III: Training adequate

Hospital A:
Level I: Performed exclusively and frequently
Level II: Very important
Level III: Training adequate

Hospital B:
Level I: Performed exclusively and frequently
Level II: Very important
Level III: Training adequate

Hospital C:
Level I: Performed exclusively and frequently
Level II: Very important
Level III: Training adequate

6. Transcribe Using Electric Typewriter

Community College, 1-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

Hospital B:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

Hospital C:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

7. Transcribe Using Magnetic Type Selector Typewriter

Community College, 1-Yr. Program:
Level I: Not taught in program
Level II: Moderately important
Level III: Training not adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Moderately important
Level III: Training adequate

Hospital A:
Level I: Exclusively and frequently performed
Level II: Moderately important
Level III: Training not adequate

Hospital B:
Level I: Not performed
Level II: Very important
Level III: Training adequate

Hospital C:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

8. Transcribe Histories and Physicals

Community College, 1-Yr. Program:
Level I: Emphasized in program (medical option)
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program (medical option)
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training not adequate

Hospital B:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training not adequate

Hospital C:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

9. Transcribe Consultation and Discharge Summaries

Community College, 1-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training not adequate

Hospital B:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training not adequate

Hospital C:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

10. Transcribe Operative Reports

Community College, 1-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training not adequate

Hospital B:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training not adequate

Hospital C:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

11. Transcribe Medical Correspondence

Community College, 1-Yr. Program:
Level I: Emphasized in program
Level II: Not very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Exclusively but rarely performed
Level II: Very important
Level III: Training adequate

Hospital B:
Level I: Exclusively but rarely performed
Level II: Very important
Level III: Training not adequate

Hospital C:
Level I: Exclusively but rarely performed
Level II: Moderately important
Level III: Training adequate

12. Transcribe Ancillary Departmental Reports, e.g., X-ray, Pathology

Community College, 1-Yr. Program
Level I: Emphasized in program
Level II: Not important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Emphasized in program
Level II: Moderately important
Level III: Training adequate

Hospital A:
Level I: Not performed
Level II: Not important
Level III: Training not adequate

Hospital B:
Level I: Exclusively but only sometimes performed
Level II: Not important
Level III: Train on-the-job

Hospital C:
Level I: Not performed
Level II: Very important
Level III: Training adequate

13. Maintain Daily Production Record

Community College, 1-Yr. Program:
Level I: Not taught in program
Level II: Moderately important
Level III: Training adequate

Community College, 2-Yr. Program
Level I: Taught but not emphasized in program
Level II: Moderately important
Level III: Training adequate

Hospital A:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

Hospital B:
Level I: Exclusively and frequently performed
Level II: Moderately important
Level III: Train on-the-job

Hospital C:
Level I: Not performed
Level II: Moderately important
Level III: Train on-the-job

14. Perform Filing, Mailing, and Charting Functions

Community College, 1-Yr. Program
Level I: Some training in program
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Some training in program
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Exclusively and frequently performed
Level II: Very important
Level III: Training adequate

Hospital B:
Level I: Rarely performed
Level II: Very important
Level III: Train on-the-job

Hospital C:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

15. Change Discs, Belts, or Tapes On Recording Equipment

Community College, 1-Yr. Program:
Level I: Some training in program
Level II: Very important
Level III: Training adequate

Community College, 2-Yr. Program:
Level I: Some training in program
Level II: Very important
Level III: Training adequate

Hospital A:
Level I: Not performed
Level II: Very important
Level III: Train on-the-job

Hospital B:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

Hospital C:
Level I: Sometimes performed, but not exclusively
Level II: Not important
Level III: Train on-the-job

16. Maintain an Abstract Ledger

Community College, 1-Yr. Program:
Level I: Some training in program (general training)
Level II: Not very important
Level III: Train on-the-job (medical abstracts)

Community College, 2-Yr. Program:
Level I: Some training in program
Level II: Moderately important
Level III: Training adequate

Hospital A:
Level I: Not performed
Level II: Not important
Level III: Train on-the-job

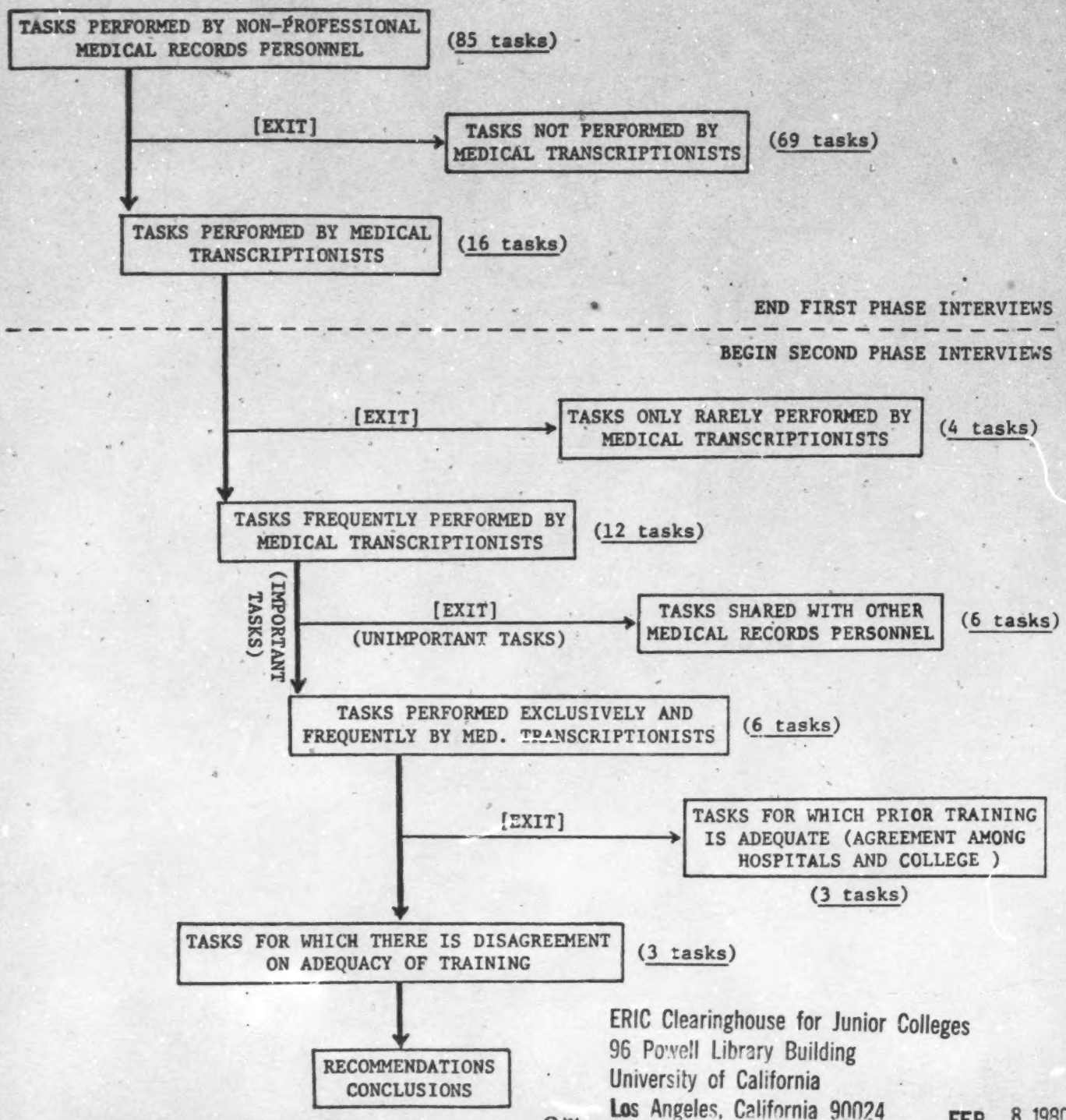
Hospital B:
Level I: Not performed
Level II: Not important
Level III: Training not adequate

Hospital C:
Level I: Frequently and exclusively performed
Level II: Very important
Level III: Train on-the-job

APPENDIX D:
Comparison of Allied Health Program Graduates and Budgeted Vacancies at Clinical Institutions in Illinois

TYPE OF PROGRAM/SERVICE	NUMBER OF PROGRAMS	NUMBER OF GRADUATES 1974/75	BUDGETED VACANCIES OF 6/1/76			
			Replacement positions		New positions	
			Full-time	Part-time	Full-time	Part-time
A. CLINICAL LABORATORY						
Blood bank specialist	4	4	248	1	6	
Cytotechnologist	5	19	6	3	7	1
Histologic technologist	9	18	87	1	4	
Medical laboratory asst.	6	37	11	2	8	6
Medical laboratory tech.	13	186	53	30	22	12
Medical technologist	43	344	134	36	50	17
B. DIETARY						
Dieticians	9	109	100	17	13	1
Dietetic technician	3	10	9	2	3	
C. MEDICAL RECORDS						
Medical records adm.	2	52	6	2	5	6
Medical records technician	7	60	28	2	13	3
Med. rec. transcriptionist	2	1	116	16	9	4
D. OCCUPATIONAL THERAPY						
Occupational therapist	1	36	16	3	5	3
Occupational therapy asst.	2	29	7		5	
E. PHYSICAL THERAPY						
Physical therapist	3	94	51	7	18	6
Physical therapy asst.	6	93	19	4	5	2
F. RADIOLOGIC-NUCLEAR MEDICINE						
Nuclear medicine tech.	10	38	22	2	5	
Radiation therapy tech.	5	16	15	5	7	
Radiologic tech.	55	484	171	68	41	5
G. RESPIRATORY THERAPY						
Respiratory therapist	4	47	46	9	22	1
Respiratory therapy tech.	10	72	63	12	16	2

APPENDIX E:
Diagrammatic Representation of the Procedure of Analysis



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